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ABSTRACT

Designed to help teachers maximize outcomes from using any social simulation/game, these guidelines are one part of a project which attempts to provide analytical and critical information on the use of simulation/games in social studies classrooms. The general approach of the guidelines is applicable to any of the simulation type activities now used in classrooms, although the orientation is specifically designed for simulation/games. The first part outlines the general teaching/learning approach, or philosophy, that underlies social simulation/games. The second part is a practical guide to preparing for and conducting social simulation/games. Steps outlined are preliminary planning and preparations; game start-up; game play; debriefing; and teacher's post-game tasks. Sample pages of the survey version used in classrooms to provide feedback for the revised guidelines are reproduced. Two other publications of this project with a projected publication date of Spring 1974 are Simulation/Games in Social Studies: What Do We Know? and Simulation/Games in Social Studies: A Report. (Author/KSM)

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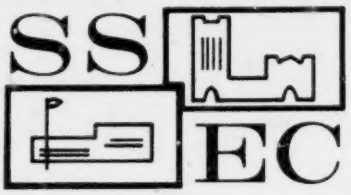


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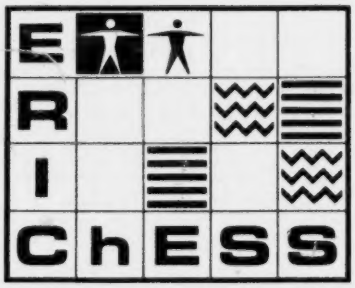


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# GUIDELINES FOR USING
# A SOCIAL SIMULATION/GAME

By

Katherine Chapman
ERIC Clearinghouse for Social
Studies/Social Science Education

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## PREFACE

The work reported in this manuscript was conducted during 1972-73 by the ERIC Clearinghouse for Social Studies/Social Science Education under U.S. Office of Education Grant No. OEC-0-70-3862, "Integrating Simulation/Games into the Social Studies Curricula: An Analysis." The work is intended to provide teachers and other educational decision-makers with analytical and critical information about the use of simulation/games in social studies classrooms in order to promote and improve the use of this innovative educational technique. The project considered only non-computer, commercially available simulations and simulation/games intended for use at grades 5 through 12.

Simulations and simulation/games have become highly visible in classrooms in the past six to seven years, and a major proportion of these have been developed for use in social studies classrooms. Simulation-type activities are especially appropriate vehicles for social learnings. They stimulate active learner involvement, and encourage realistic consideration of social issues. Thus, they can be a particularly powerful technique in the social studies classroom. Currently, however, there is a lack of analytical and evaluative information on the strengths and weaknesses of simulation/games, and what information there is often is confusing or not readily available to educational decision-makers.

To meet the broad objective stated above, the project proceeded on two fronts. First, an intensive review of the theoretical and research literature on gaming and simulations was conducted. This review included an analysis of patterns of use and integration of simulation/games within several of the new social studies projects, as well as a critical evaluation of many free-

standing simulation/games. From this background, an analytical framework for examining various simulation-type activities (role-plays, simulation exercises, and games as well as simulation/games) was developed. All of this work is reported in the first paper in this ERIC/ChESS series, *Simulation/Games in Social Studies: What Do We Know?*

The second project endeavor was a survey of the use of simulation/games by social studies teachers. One hundred thirteen teachers from eight states completed a variety of written reports on their goals, learning outcomes, and the general conditions under which simulation/games are used. A considerable amount of anecdotal information and some student-created products were included in the reporting. The major part of the information garnered from this survey is reported in the third manuscript in this series, *Simulation/Games in Social Studies: A Report*.

Some teachers in the survey used the first version of a set of guidelines for maximizing use of a simulation/game. These guidelines provide general guidance on how to prepare for, handle, and debrief any simulation/game. The development of, teacher reactions to, and a revised version of these guidelines is reported in this, the second paper of the simulation/games series, *Guidelines for Using a Social Simulation/Game*.

Katherine Chapman
James E. Davis
Co-Directors

August 1973

## Acknowledgments

The development of an educational tool like these "Guidelines" would not be possible without the time and patience of teachers who are willing to try out a splintery, rough-cut first version in the classroom, and communicate effectively their insights into its faults and virtues. My greatest thanks go to those teachers who used and evaluated the "first edition" of the Guidelines. I am also grateful to Jack Cousins of the School of Education here at the University of Colorado and to those among our liaison people in the field who provided helpful comments on the draft of this paper: Robert Bilek (Salinas, California); Robert M. Cason (East Point, Georgia); James DeBell (Westminster, Colorado); Dana Kurfman (Prince Georges County, Maryland); Jack Morgan (University of Louisville, Kentucky); and Roger Wangen (St. Paul, Minnesota). Karen Wiley, who edited the final version of this paper, greatly improved its readibility.

I would like to thank my project co-director, James E. Davis, for prodding me to think through the first section of the Guidelines, a philosophically awkward task. Finally, thanks are due two colleagues, Pat Marques and Betsy Gyger, who tabulated data, surely one of the more thankless tasks in research.

K. C.

TABLE OF CONTENTS


Preface.....i

Acknowledgments.....iii

Introduction.....1

Development of the Guidelines.....2
Research and Writing of the Original Version.....2
Classroom Trials and Feedback.....4
Revision Based on Feedback.....9

Recommendations for Use of the Guidelines.....9

Guidelines for Using a Social Simulation/Game.....10

Teaching/Learning Approach.....11
Introduction.....11
Content and Process.....12
Teaching and Learning.....13
Roles and Behaviors.....15

Step-by-Step Guidance.....15
Preliminary Planning and Preparations.....16
Game Start-up.....20
Game Play.....21
Debriefing.....22
Teacher's Post-Game Tasks.....24

Appendix.....26

Bibliography.....28

# GUIDELINES FOR USING A SOCIAL SIMULATION/GAME

Katherine Chapman
ERIC Clearinghouse for Social Studies/Social
Science Education

## Introduction

During the academic year 1972-73, the ERIC Clearinghouse for Social Studies/Social Science Education was commissioned by the U.S. Office of Education to conduct a project which would provide analytical and critical information on the use of simulation/games in social studies classrooms. These Guidelines reflect a portion of the work done in fulfillment of that commission.

The Guidelines are designed to help teachers maximize outcomes from using any social simulation/game, providing a sort of "how-to-do-it-while-on-the-spot" guide. The first part, entitled "Teaching/Learning Approach," presents in outline form the general teaching/learning approach--or "philosophy"--that underlies social simulation/games. The second part, entitled "Step-by-Step Guidance," is a practical guide to preparing for and conducting social simulation/games. The general approach of the Guidelines is applicable to any of the simulation-type activities now being used in classrooms, role-plays and pure simulations as well as simulation/games. However, the orientation and detail of the Guidelines are specifically designed with simulation/games in mind.

We were impelled to create these Guidelines by our feeling that, more often than not, simulation/games are poorly handled in the classroom. Whether from lack of training, lack of awareness, or actual indifference, scores of

social studies teachers are fumbling the use of simulation/games, depriving their students of the varied and exciting outcomes possible with them. We do not intend to imply by this that the Guidelines are to be viewed as a substitute for the instruction manual that accompanies a specific simulation/game. However, they came into existence partially because many instruction manuals are inadequate. The Guidelines are designed to complement an inadequate instruction manual and to provide support when there is no manual.

## Development of the Guidelines

The development of these Guidelines took place in three successive stages: research and writing of the original version; classroom trials and feedback; revision based on feedback. In addition to these three major developmental steps, a number of simulation/game experts reviewed the final manuscript before publication.

Research and Writing of the Original Version. The original version of the Guidelines was drawn up on the basis of our review of the research literature and of existing simulation/game materials, our own experience in the development and use of simulation/games in the classroom, and discussions with users and experts about simulation/gaming.

The first part of the Guidelines, "Teaching/Learning Approach," contains a synopsis of the teaching/learning approach (philosophy) that underlies simulation/gaming. Simulation/gaming assumes a different approach than does the traditional lecture-discussion-test strategy still commonly used in classrooms; it posits different roles and behaviors on the part of teacher and students than many are accustomed to. In the process of discussing the presumed advantages of simulation/games, numerous game designers and theorists state or imply elements of this teaching/learning approach. Also, one can read between the lines of the theoretical and research literature and find

underlying assumptions about what is "good" or "better." However, nowhere in the educational simulation/games literature can one readily find a comprehensive description of an underlying educational philosophy. Thus, it was necessary to pull together this statement of teaching/learning approach from a number of sources.

The philosophy that underlies simulation/gaming seems most akin to the "models of teaching designed to improve democratic processes," which are a subgroup of the "interaction-oriented models" described in *Models of Teaching*. (Joyce and Weil 1972, pp. 27-101) Such a philosophy assumes there is an "inextricable relationship among the personal world of the individual, his intellect, social processes, and the functioning of a democratic society." (Joyce and Weil 1972, p. 32) The statements on "general approach" and "roles and behaviors" in the "Teaching/Learning Approach" section of the Guidelines are based almost entirely on Joyce and Weil's description of the democratic-process models. Their wording also carries over into the Guidelines' statements of "what is being learned." These latter statements, however, derive mostly from the literature on educational simulation/games. Some represent generally acknowledged outcomes of the technique; others are toned down (i.e., properly qualified) versions of common claims made for simulation/games, which often have been over-stated in the past.

This first section of the Guidelines, with its abstract, intellectual tone, is just the sort of thing one can picture a teacher skipping over as he flips to the "practical" part of the document. It is included for three reasons. First, as the Guidelines were being developed, it seemed intellectually dishonest to present a body of action without including the soul. Second, it seems likely there will be some who will read, and, reading, change a bit in the appropriate direction. Third, as mentioned above, this

represents an attempt to articulate, more comprehensively than has been done previously, the model of teaching/learning that underlies social simulation/gaming.

While the first portion of the Guidelines was developed primarily on the basis of our review of the research and philosophical literature, we found we had to rely primarily on other kinds of resources for the development of the practical guidance part of the Guidelines. There is, as yet, little research on how to maximize use of a simulation/game in the classroom. (See the first paper in this ERIC/ChESS series, *Simulation/Games in Social Studies: What Do We Know?*, for a review of the literature. (Chapman, Davis, and Meier 1973) Except for one early practical paper (Harry 1969) and one on game evaluation (Gillespie 1972), there has been little theoretical writing on how to use games generally. Numerous suggestions can be found scattered throughout other writings, however. A few of the ideas in the step-by-step guidance section can be attributed to research findings. (Inbar, pp. 169-190; Zaltman, pp. 205-215; and McKenney and Dill, pp. 217-231; all in Boocock and Schild 1968; also see Fletcher 1971) More were unblushingly stolen from Andrea Meier* and other theoreticians in the field. (Harry 1969; Burgess, Peterson, and Frantz 1969; Sachs 1970; Fennessey 1972) Much of the material in this section is based on the author's own experience in the development of simulation/games (Chapman, forthcoming 1974) and on "conventional wisdom" in the field.

Classroom Trials and Feedback. The ERIC/ChESS simulation/game project surveyed a total of 113 teachers. The purposes of this survey were to gather information on teachers' goals, on learning outcomes, and on general conditions under which simulation/games are used. Of this total sample, 49 agreed to

*Personal conversations, 1972.

use the original version of the Guidelines in their classrooms and furnish us with specific evaluation data on them. The Guidelines trials were conducted during the three-month period, January - March 1973.

Characteristics of the sample of teachers and procedures for the entire survey are described in detail in the third paper in this ERIC/ChESS series, *Simulation/Games in Social Studies: A Report*. (Chapman and Davis 1973) Briefly, the 49 social studies teachers--who returned 62 evaluations of the Guidelines, since some used them on more than one occasion--came from five states: Colorado, Georgia, Kentucky, Minnesota, and Oregon. Thirty-two of the reports came from the 20 teachers in Kentucky. Thirty-four different simulations and simulation/games were used by the sample. The teachers taught grades five through 12, with a majority of reports based on senior high classes. Information reported by the teachers suggests they represent, as a group, more experience with and knowledge about simulation/gaming than the norm for the total population of social studies teachers. There were, nonetheless, some teachers for whom this was the first time they had used a simulation/game in the classroom.

The feedback requested from the teachers included an overall evaluation of the Guidelines and specific evaluation of the two parts, "Teaching/Learning Approach" and "Step-by-Step Guidance."

There were three general questions about the usefulness and usability of the Guidelines as a whole. The results for these three questions are reported in Figure 1, on the following page. As shown here, only the ends of the five-point scales used in Questions 1 and 3 were labeled. The number of responses counted for each point on the scale includes all checks within a distance ranging from one-half-way above the point to one-half-way below the point. Checks falling mid-way between points were assigned one-half to each point,

FIGURE 1

Responses to the Three General

Questions on the Guidelines

Question 1. On the scale below, check how useful (helpful) you found these Guidelines.

| Number of Responses: | 2 | 5½ | 15 | 30 | 7½ | Total: 60* |
|---|---|---|---|---|---|---|

More trouble than worth — Very useful

Question 2. Below indicate whether you found these Guidelines:

(15) too long

(45) about the right length

(0) too short

Question 3. On the scale below, indicate how easy or difficult you think teachers will find these Guidelines to use.

| Number of Responses: | 2 | 11 | 18½ | 22 | 6 | Total: 60 |
|---|---|---|---|---|---|---|

Difficult — Easy

*Two respondents did not answer these questions.

Checks falling mid-way between points were assigned one-half to each point, which accounts for the occasional "one-half" of a response.

Concerning Question 1, nearly two thirds (37½) of the respondents fall in the top range of the scale, indicating respondents found the Guidelines to be useful or very useful, while only seven and a half responses fall at the bottom of the scale, indicating dissatisfaction with the Guidelines. In response to Question 2, three fourths of the sample felt the Guidelines were about the right length. One fourth felt they were too long, commenting that they were "redundant," "self-evident," and "repetitious." One respondent felt they were "unnecessary," because, "Nearly every simulation game I have used has given complete instructions..." Responses to Question 3 indicate that teachers found the Guidelines not quite as easy to use as they were useful. Just under half (28) of the teachers thought the Guidelines were easy, or relatively so, to use. Close to another one third found them to be half-way between easy and difficult to use, and the rest of the responses (13½) indicated these teachers found them difficult to use.

Three separate questions, similar to those used for the overall evaluation, were asked about the first section of the Guidelines, "Teaching/Learning Approach." The inclusion of this portion of the Guidelines in the revised version seemed warranted, since 53 out of the 60 responses to one of the questions indicated it "should be retained as part of these Guidelines in pretty much the form it has here," rather than being revised or deleted. Responses to the other questions gave very little insight on ways to improve this section. One minor change was made on the basis of a teacher's suggestion. Otherwise, except for editing, the section remains as it was in the original version of the Guidelines.

The teachers were asked for and provided more specific responses to the

second portion of the Guidelines, "Step-by-Step Guidance." This section of the Guidelines was arranged in format that permitted users to evaluate each step directly on the page as they worked their way through it. For each step in the outline, a user was asked to (1) check each step he/she actually did, (2) evaluate the worth of the step on a scale provided, and (3) check any step he/she did not understand. Space was provided for comments and for descriptions of things teachers did that were not in the outline. (See the Appendix for a sample page of this survey version of the Guidelines). The data on the 39 steps were compiled in three ways. First, all teacher comments were collated for each step. Second, the number of respondents who actually did each step was counted. And, third, responses on the four-point evaluation scales for each step were tabulated.

A high percentage (75% or more) of teachers completed each of the 39 steps except for two labeled "for advanced classes," two labeled "if applicable," and one labeled "if possible." It appears that respondents conscientiously carried through with as many steps as practicable in their own circumstances, which is what the try-out instructions asked of them.

The four points on the evaluation scale for each step were:

(1) This step is very important.
(2) This step is important.
(3) This step is of some importance.
(4) This step is unimportant.

The number of (1) and (2) responses were added for each step, and those steps for which this total was less than 45 (approximately 75% of total possible) were re-evaluated. Many of the steps that had low evaluation scores were labeled "if applicable," "optional," or "for advanced classes." The written comments clearly showed that teachers often scored a step (3) or (4) when it was not applicable in the respondent's own situation, rather than scoring it in terms of some general value.

There was a clustering of low evaluation scores (as well as lower numbers of those who completed a step) for steps which occur after the general debriefing of the game play. These are steps which recommend advanced consideration/disucssion of the model underlying the simulation/game, and suggest the teacher make certain kinds of notes and records if he/she plans to use the game again. These latter steps stimulated such comments as: "Once again, a good idea. But I lack time and a secretary. Once a unit is over, I am more worried about the next unit than analyzing and dissecting the past unit."

Revision Based on Feedback. As a result of the feedback garnered from the trials, many changes were made in the step-by-step guidance section of the Guidelines. The changes were mainly matters of rewriting (for greater clarity), reorganizing (for better sequencing), and adding ideas blatantly stolen from the evaluation teachers. All steps in the original version seemed to be useful to a reasonable number of users. One step was combined with another, and one new step was added, leaving the total number of steps at the original 39.

Thus, the total length of the document runs about the same as before. Although one quarter of the users indicated they thought the Guidelines were too long, no consistent suggestions on what to delete were received.

## Recommendations for Use of the Guidelines

As mentioned earlier, many teachers in our sample had had previous experience with simulation/games. Many of these commented that the Guidelines seemed to them to be most appropriate for teachers unfamiliar with games: "A Check-list like this would be invaluable to someone who has never done a simulation." "In lieu of having played a game or having someone who is familiar with the processes involved, I think these guidelines would be

helpful and very useable." A novice wrote: "I liked having the guidelines since I had not used a game before."

However, a minority message came through, too: "Guidelines easy if teachers have had some experience with simulations." "...guidelines mean much more to someone who has used simulations before. They provide you with a number of points to remember in playing the simulation."

Based on the responses of this first set of users, we recommend that the Guidelines can be used profitably in the following circumstances:

(1) Teacher education courses, both methods courses, when dealing with simulation/gaming, and social foundations courses, when dealing with educational philosophy;

(2) Inservice training in the use of simulation/games;

(3) As a study guide as well as classroom aid for teachers who are using a simulation/game for the first time and who are otherwise unfamiliar with simulation/games; and

(4) As a reference document (a review, an organizer) for teachers who are experienced in using simulation/games.

## Guidelines for Using a Social Simulation/Game

These Guidelines for optimal use of a social simulation/game in the classroom are divided into two parts. The first part presents the general teaching/learning approach that underlies social simulation/games. In a sense, this is the "philosophy of education" that is incorporated into a good social simulation/game. The second part of these Guidelines provides step-by-step practical guidance for using a social simulation/game.

These Guidelines are not a substitute for the specific instructions

that accompany a simulation/game. Rather, they provide an overall outline for game-related classroom activity and fill in the gaps for an incomplete instruction manual.

Teaching/Learning Approach

In this part of the Guidelines are presented a series of statements, in outline form, about social simulation/gaming. These statements are drawn from the current research and theoretical literature on simulation/gaming and are intended to reflect the nature and scope of present thinking on the teaching/learning approach underlying successful social simulation/gaming.

These statements, taken as a whole, should guide "teacher" behavior during use of a game in the classroom. To a considerable extent, the success of a social simulation/game depends on maintenance of the appropriate teaching/learning atmosphere during all activity related to the game. A teacher who feels he/she cannot establish and maintain a teaching/learning situation much as it is described in the following generalizations is not likely to have real success with social simulation/games in the classroom.

I. Introduction

A. A teacher may use a simulation/game to "provide variety" or "get students involved," but his/her other expectations probably focus mostly on learning of "content."

B. However, research shows that "content," as measured by standard paper-and-pencil tests, generally is not learned any better through simulation/games than by other methods.

C. As learning experiences, simulation/games combine intellectual tasks (e.g., remembering and applying information) with performance of certain social roles and behaviors.

D. Both research and anecdotal information suggest that participation in these social roles and behaviors is as significant to learners as is participation in the intellectual tasks and is necessary to full attainment of intellectual learnings.

E. An appropriate teacher role and behaviors are necessary to elicit and support learner participation in these social roles and behaviors.

II. Content and Process

A. Most of what happens during a simulation/game is a mixture of intellectual operations and interpersonal relations; content and process are interwoven.

B. The most common "activity" in simulation/games is decision-making; the player must consider a set of information (both available and missing), make a decision, and carry through a commensurate action.

C. Most often simulation/games focus on interrelationships among facts, values and/or events (rather than on discrete facts or one-to-one relationships).

D. Many simulation/games involve "content" that cuts across the lines of traditional disciplines.

E. Social simulation/games vary greatly in how much they incorporate the teaching/learning approach described here. Simulation/games may vary along several important dimensions; and, in general, to incorporate the principles of the teaching/learning approach presented here, they should be closer to the left-hand than to the right-hand end of each dimension below:

| | | |
|---|---|---|
| Open-ended role-play | vs. | No role identification |
| Consequential decision-making | vs. | Chance |

| | | |
|---|---|---|
| Definition of roles, resources, and payoffs in both "quality" (social, emotional) and "quantity" (points, money) terms | vs. | Definition of roles, resources, and payoffs only in "quantity" terms |
| Challenging (challenging amount of information to be handled to play intelligently) | vs. | Simple-minded |
| Freedom of behavior (alternative behaviors allowed and rewarded) | vs. | Restricted behavior |

III. Teaching and Learning

A. Players in a simulation/game create a "shared reality" by their interaction; one teaching/learning task is for players to articulate and reflect upon this "shared reality."

B. This "shared reality" is a composite of the unique experiences of each participant; another teaching/learning task is for each player to articulate and reflect upon his own personal learnings.

C. Because what happens in the simulation/game is created by the particular individuals playing, there is always some degree of unpredictability about the outcomes (A and B above).

1. The more open-ended the simulation/game, the more unpredictable player behavior is.

2. The more open-ended the simulation/game, the more improvisation is required of both teacher and students.

D. The "shared reality" created in the classroom via a simulation/game reflects an external societal reality.

1. Both the classroom "shared reality" and the external reality it reflects are important and valid topics for consideration in the

classroom.

2. The classroom "shared reality" provides a perspective on external reality from which players can legitimately question the "oughtness" of external reality.

E. Some simulation/games raise value questions, which must be considered natural and appropriate topics for consideration in the classroom.

F. In some simulation/games, players engage in such interpersonal behaviors as conflict resolution or management, manipulation and resisting manipulation, decision-making by negotiation, and handling power conflicts. Students must be willing and able to engage in such behaviors; the teacher must have the skill to help students learn and practice such behaviors; and the learning and use of such behaviors in school must be considered important and legitimate.

G. Emotional involvement and expression (within the usual social bounds) are a natural and legitimate concomitant of learning in a simulation/game.

H. To the extent a simulation/game encourages alternative behaviors and these are explored by players, the simulation/game fosters divergent (rather than convergent) thinking in players.

I. To the extent a simulation/game is based on strategic thinking (i.e., outcomes are dependent upon players' decisions and behaviors) rather than on chance, it fosters in players a sense of self-direction (i.e., what happens to me is the result of my own choices).

J. To the extent a player perceives the relationships among facts, values, events, and his own decisions and behaviors in the simulation/game, he experiences the world as being rational (explainable, understandable).

IV. Roles and Behaviors

A. The role behaviors expected of teacher and students during a simulation/game must be perceived as legitimate.

B. The students and teacher have equal status, although they have different roles.

C. The teacher is counselor-consultant-facilitator-friendly critic-coach, rather than an authority. He/she:

1. facilitates natural group processes;
2. guides this group energy so it aids the educational process;
3. encourages discussion of motivations;
4. calls attention to significant events;
5. encourages analysis;
6. encourages discussion leading to awareness of the shared reality created in the classroom; and
7. encourages each student, in his individual way, to find his own personal meaning from the simulation/game experience.

D. The students:

1. are responsible for their own learning; and
2. are responsible for helping other students learn.

E. All are both participants in and observers of the learning process.

1. The teacher serves as a model of how to be an observer-participant.
2. Students also are both observers and participants.

Step-by-Step Guidance

This part of the Guidelines is divided into five sections (indicated by Roman numerals), beginning with a section on preliminary planning and preparations. This is followed by sections on how to "start-up" a game on

maintenance of game play, and on debriefing a game. The last section provides suggestions for the teacher who intends to use the same game again.

Each section is broken down into steps, indicated by capital letters. Sometimes a step is applicable only under certain circumstances or is optional. Such steps are prefaced by an inderlined phrase such as, "If game is new to you," or simply "If applicable" or "Optional." Some steps are followed by explanatory notes, which are in italics.

I. Preliminary Planning and Preparations

A. Read (or review) all material

*Note: While reading, watch for unclear rules and directions; be prepared to clarify these for students.*

B. Determine how many games you need; decide the number of players per game. (See J, on role distribution.)

*Note: It is advisable to follow the recommendations (if any) that come with the game.*

C. If game is new to you. Play and participate in the game ahead of time.

*Notes: Participating as a player is the most valuable introduction to a new game; best to play with adults.*

*As you play, get a feel for how hard it is to "get into" the game. (So you have some feel for how thoroughly you will need to go over rules with students before play begins.)*

*You may wish to serve a second purpose by including selected students from*

*the class in this preliminary play. These students then can be helpful during classroom play, e.g., put them in significant roles, or have them play a demonstration round. If more than one group will be playing in the classroom at the same time, it is essential to have "pre-trained" students in order to have one in each group.*

D. If applicable. Arrange for resource and reference materials you wish to have in the classroom or on reserve in the library. Arrange for equipment needed.

E. Decide the number of times, or the approximate number of rounds, you plan to play, and allot the necessary time for both playing and debriefing.

*Note: It is advisable to follow the recommendations (if any) that come with the game. If game is new to you, or if it is a complex game, allot additional time. (Game complexity = amount of information player needs to operate intelligently.)*

F. Prepare and organize necessary materials.

*Note: Be sure you have everything (cards, forms, etc.). When you estimate needs for forms that must be duplicated, always over-estimate. You may wish to pre-sort materials for ease of distribution. Sometimes a transparency of a form, e.g., scoring form, is helpful when explaining the rules. Perhaps name tags would be helpful.*

G. Review the physical arrangements required by the game.

*Note: Questions to ask yourself: Is there a lot*

*of player movement? (You may need a larger room.) Does the furniture need to be rearranged? What is the best way to do this?*

H. Decide how to distribute roles among players.

*Notes: For simple games, it is advisable to have each student play a separate role; for complex games and/or with large groups, it may be advisable to pair or team students. (Pairing or teaming speeds up complex games; also, discussion of strategy by team-mates generally improves decision-making and increases learning.)*

*Sometimes key roles requiring leadership or divergent thinking (or whatever) should be assigned. If feasible, teams should be of mixed abilities. Perhaps students who have trouble with arithmetic need to be paired with those competent in arithmetic. On the other hand, students may perform better if allowed to choose their own roles and team-mates.*

*The value of playing a role yourself (other than running the game) is that you share the learning experience with students. However, if you--rather than a student--are running the game, usually it is advisable not to become involved in a role because of the many tasks required of you, especially during a complex game.*

*In interactive and long-range games, and games with players in key roles, absenteeism can be disruptive. For such games, plan now how to deal with absenteeism. See III-I for suggestions which, if followed, affect role assignment.*

I. Decide how much, if any, pre-game practice students need in the necessary interactive skills and provide such practice as is needed.

*Note: Interactive skills include role playing, debating, decision-making by negotiation, social conflict resolution, etc. Perhaps students can play a simpler game or engage in a simpler activity that calls on some of the same interactive skills.*

J. Determine the level of arithmetic skills required; if needed, provide students with necessary review.

*Note: Questions to ask yourself: Should you provide analogous practice problems ahead of time? Do some roles require better arithmetic skills than others?*

K. Decide how much, if any, introduction students need to the content ideas of the game and provide such introduction as is needed.

*Note: If the game is complex, try examining factors involved (ideas, processes) one or a few at a time. If possible, also examine how these factors fit together.*

L. Determine the amount and vocabulary level of reading required; if needed, plan how to provide students with necessary help.

M. Optional timing. Decide on when to distribute roles among players.

*Note: Whether you distribute roles to players now or during the game start-up depends on the complexity of the game, on your students, and on your own preferences. Given a complex game, you may wish to distribute roles now so players can begin to think in terms of their own roles; this will also speed your game start-up. Given a simple game, you may wish to distribute roles later so all players pay attention to all instructions and information.*

II. Game Start-up

A. If necessary. If students are not familiar with them, provide a general introduction to simulation/games.

*Note: Answer these questions: What is a game? What is a simulation? What are their purposes? What kinds of experiences can players expect to have in simulation/games?*

B. Introduce this specific game.

*Note: Describe purposes and main features of the game. Keep introduction as short as possible; the more complex the game and the less familiar students are with simulations, the longer the introduction needs to be.*

C. Go over the rules and game materials with students.

*Notes: Emphasize operations; don't recommend strategy. For simple games, players can begin without total understanding of the rules; for complex games, take more care to see that players understand the rules before they begin. The value of information redundancy at this point increases as the complexity of the game increases. Assure students they will overcome their confusions as they play.*

*Display game materials as you discuss rules. As you discuss record and scoring forms, it helps to project them on an overhead or have a large mock-up on which to demonstrate.*

D. Optional timing. Distribute roles among players if you have not already done so.

E. Recommended option for complex games. Have students play a practice round.

*Note: This round should not count in the scoring.*

*You may have to abbreviate it. Debrief it, focusing on clarification of rules and operations.*

III. Game Play

A. Maintain a supportive attitude.

*Note: Review the first section of these Guidelines concerning the supportive, coaching teacher role. You should allow any behavior that is not disallowed within reason and the usual social norms. Remain neutral regarding students' strategies.*

B. Be prepared for the unexpected; improvise.

C. Note the kinds of difficulties students have.

*Note: Keep notes on problems that recur, or seem likely to recur in subsequent game plays. (If the difficulty arises from a weakness in the game, you may have to change a rule or procedure. If you do this, watch how your change operates to be sure you solved the problem rather than compounded it.)*

D. Keep anecdotal notes on significant bits of conversation and behavior that you observe.

*Note: During daily discussion and the debriefing, use these notes as a springboard, and as an aid in reconstructing events.*

E. Keep players thinking about their own playing strategies and evaluating their own progress.

*Note: Encourage frequent discussion of what is happening. Ask such questions as: What information is important to you? Of what use is it? How do the actions of other players affect you? Why did/didn't you*

*do well last round?*

F. If available. Keep posting scores; use them as a springboard for comparing success of different strategies.

G. If applicable. Keep graphic records of progress.

*Note: If any data generated by the game can be put into graphic form, e.g., a diagram or table, on an on-going basis, use this, too, as a springboard for evaluating progress.*

H. Watch for evidence that, over time, a reasonable proportion of players become more intelligent in their playing strategies.

*Note: If players are not learning from their own mistakes, more direct coaching on your part might be necessary.*

I. If absenteeism threatens to disrupt progress, find ways to compensate.

*Note: Particularly in interactive and long-range games, and games with people in key roles, absenteeism can be disruptive. When necessary, assign a student from a player-pair or team to play the role of an absent student, or play the role yourself. Perhaps one or more students can act as floating substitutes.*

IV. Debriefing.

*Notes: Debriefing is when most players analyze their game experiences, generalize from these and the experiences of their classmates, and draw parallels between the simulation and reality. A simulation/game is an aborted learning experience without a debriefing. The more complex the game, the more time you should allot for debriefing. Debriefing discussions are, by nature, fluid and open-ended. Your*

*approach should fit your own teaching style and the response patterns of your students. Except for Steps A and B being first, and Step G being last, the following do not have to be in the order given, and are not so much separate steps as they are related insights. These points all should be covered, but there is no "best" sequence for a debriefing, except for a general pattern of moving from game-specifics to reality-generalizations.*

A. Allow students to express their feelings about the game experience; permit venting of positive and negative feelings; settle unresolved disputes.

B. Have players compare strategies (what decisions they made and why).

*Note: If there is a winner(s), have winning and some non-winning players describe their strategies (and compare scores).*

C. Compare logic of what happened in the game play to what would happen in reality.

*Note: Use any data you have (your notes, graphs, scores, etc.) and a history of events in the game. Have students explain differences between game occurrences and what would happen in reality.*

D. Compare the game design (rules, resources, and roles; action potentials and constraints) with reality.

*Notes: Questions to ask: What matched? What didn't match? What was left out?*

*If appropriate, compare the scoring system with its comparable real-world reward system.*

E. <u>If applicable</u>. Discuss value questions which arose.

*Note: In discussing values, two things are important:*

*First, students should explain why they hold their values. Ask them what happened in the game (or what has happened to them in real life) that leads them to believe what they believe. Second, you should remain neutral.*

F. Students should articulate what they learned, sharing this with each other, and applying this in some manner. (Normally, application will be by some method other than discussion.)

G. For advanced classes. Re-create the model underlying the game, and evaluate it (i.e., carry through with C and D to a more sophisticated level.)

*Notes: The model is the simplified pattern of reality that the game simulates. Questions to ask: How accurate is the model? How could the model be improved? How could the game be improved?*

*The model can be further analyzed and evaluated by (a) projecting game events into the future, (b) creating another simulation/game based on the same model, (c) redesigning the game using an improved model, or (d) comparing the model with a case study.*

V. If you intend to use game again. Teacher's post-game tasks.

A. Compile your own list of "commonly asked questions" (and answers that seem to work?) so you are ready for them next time.

B. Compile (or finish) a list of problems that arose that seem likely to arise in future plays, and how you dealt with them--or how you will try to deal with them next time.

C. Make records on any other information useful in planning the next play.

*Note: For example: (a) number of forms used; (b) how long the game and related activities took; (c) anything you learned to help with distributing*

*roles; (d) related A-V and library materials.*

D. Note game modifications you might try next time.

E. <u>If applicable</u>. Reassemble game materials now, while used to handling them.

# APPENDIX

## Sample Page of the Survey Version of

## Guidelines for Using a Social Simulation/Game*

Evaluation data are given for the steps on the sample page. The number of responses (out of 62 respondents) is given under "Check each step you do." The distribution of evaluation scores is given in the next column. A few pointed responses are quoted in the "space for comments."

*Called "Guidelines for Using a Simulation/Game" in the survey version.

| Check each step you do | Evaluation score | Check any unclear step | |
|---|---|---|---|
| 59 | 1-40<br>2-16<br>3- 2<br>4- 1<br>59 | | IV. Game Play |
| 57 | 1-40<br>2-12<br>3- 4<br>4- 1<br>57 | | A. Maintain a supportive attitude<br>Notes: Review the first section of these Guidelines concerning the supportive, coaching teacher role. You should allow any behavior that is not disallowed within reason and the usual social norms. Remain neutral regarding students' strategies. |
| 54 | 1-21<br>2-19<br>3-11<br>4- 6<br>57 | | B. Be prepared for the unexpected; improvise.<br>C. Keep notes on the kinds of difficulties students have.<br>Notes: If the problem cannot be handled on the spot, later use your notes as the basis for discussing or solving the problem. Note problems that recur, or seem likely to recur. If the difficulty arises from a weakness in the game, you may have to change a rule or procedure. (If you change or add a rule, watch how it operates to be sure you solved the problem rather than compounding it.) |
| 52 | 1-10<br>2-23<br>3-17<br>4- 5<br>55 | | D. Keep anecdotal notes on significant bits of interaction which you observe.<br>Notes: During daily discussion or the debriefing, use these notes as a springboard, and as an aid in reconstructing events. |
| 56 | 1-34<br>2-18<br>3- 3<br>4- 1<br>56 | | E. Keep players thinking about their own playing strategies and evaluating their own progress.<br>Notes: Encourage frequent discussion of what is happening. Ask such questions as: What information is important to you? Why? Of what use if it? How do the actions of other players affect you? |

**EVALUATION SCALE**

1. This step is very important
2. This step is important
3. This step is of some importance
4. This step is unimportant

This space for comments. If you skip a step, please explain why. You may combine responses to related steps. If you need more space, use the back of the page.

*A. I can understand this statement and the reason for the insertion. ("Remain neutral regarding students' strategies.") Some teachers will try to run the game the way they feel it should happen and this should not be.*

*B. This is so important!!*

*C. Good idea, but who has time to do it?*

*D. This makes the game more personal; they become more involved.*

*E. Our game took a lot of this but you could really see awareness grow.*

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